

then introduced. The cervix uteri appeared perfectly natural, with nothing about it to account for the incontinence of urine. On withdrawing the moveable blade of the speculum, and carefully examining the anterior portion of the vagina, the source of the difficulty was at once discovered; about an inch behind the orifice of the urethræ, existed a fistulous opening, about the size of a crow quill, and through which a probe was introduced, and passed directly into the bladder. The edges of the fistula were touched with nitrate of silver, and they gradually contracted, to such a degree as to be productive of only trifling inconvenience to the patient.

Remarks.—This case with others, which have been detailed in the course of this report, furnish decisive evidence of the necessity of the speculum to a thorough investigation and correct diagnosis of diseases of the uterus and vagina. Long practice may give wonderful acuteness to the skilful finger; still the touch must ever be a very imperfect substitute for the sight. An additional consideration is the facility of applying leeches, caustics, and other remedies, through the medium of the speculum, which otherwise would be impossible.

ART. IX.—*Case of Delirium Tremens*. By BLANCHARD FOSGATE, M. D., of Auburn, N. Y.

ISAAC SEATON, aged 36 years, a stage driver of dissipated habits, was by his own request sent to the county jail on the morning of the nineteenth of May last. His reason for requesting this confinement, was through fear of a conspiracy against his life.

At six o'clock, P. M. I received notice of his situation, and found him in a highly excited state of both mind and body. His manner was frightfully furious, but harmless; his sole object being to escape attempts upon his life, which he said were made by sucking his breath. His respiration was short and hurried—pulse quick and compressible—tongue white with red edges—bowels natural and without pain on pressure—his voluntary muscular system in great tremor, and his extremities were cold. By conversational address, he was soon so far controlled as to give the following history of his case.

He stated that for a long time he had drank about a pint of spirits daily, but for the last four days he had had only two glasses, and for this period he had not been asleep; that his domestic affairs sorely troubled him; that he had a gonorrhœa of three weeks standing, and that within the preceding four days it had been greatly aggravated, and he sincerely wished to die that he might escape assassination. The secretion of urine was copious,

being, according to his own statement, not less than quadruple the usual quantity. His appetite was indifferent, and for some weeks he had vomited white frothy matter every morning. This was his third attack of the disease.

<i>Dates.</i>	<i>General Symptoms.</i>	<i>Treatment.</i>
May 19. Evening.	Condition as above stated.	Gave 60 gts. Tr. opium and 2 oz. brandy in hot water.
" 20. Morning.	Patient has slept tolerably well, and the delirium is somewhat abated.	Gave 1½ oz. Ol. ricini.
" " Evening.	Symptoms not improved,—prescription has operated several times.	Gave 3 grs. opium.
" 21. Morning.	Disease increasing.	Directed 1 gr. opium every hour.
" " Evening.	No better.	Gave 3 grs. opium and directed 1 gr. every hour.
" 22. Morning.	Symptoms aggravated,—great distress and soreness of the epigastrium.	Applied a large blister, and directed 2 grs. opium every hour.
" " Evening.	Blister drew well—epigastric symptoms are much relieved, but no appearance of improvement in the disease.	Directed 2 grs. opium every hour.
" 23. Morning.	Much worse,—has had no sleep,—both the delirium and tremor have increased in violence,—skin hot and dry.	Directed one cold sponging, and 2 grs. opium every hour.
" " Evening.	Symptoms no better,—blistered surface is much inflamed and very irritable.	Gave 4 grs. opium, and 2 grs. every hour.
" 24. Morning.	The disease has very nearly abated, but the poisonous effects of opium are developed,—a sensation of numbness in the right hemisphere of the brain, and <i>pain and rigidity of the muscles of the nape of the neck</i> . The gonorrhœal discharge has entirely subsided.	Directed 1 gr. opium every hour.
" " Evening.	All the symptoms of the disease are again aggravated, but the poisonous action has subsided.	Directed 1 gr. opium every hour.
" 25. Morning.	A little sleep during the night, but no improvement in the disease.	Directed 2 grs. opium every hour.
" " Evening.	Disease is still further aggravated, and the patient is getting onruly.	Continue the opium as last directed.
" 26. Morning.	Some better,—an evacuation by the bowels for five days.	Gave 1½ oz. Ol. ricini.
" " Evening.	Symptoms are all worse,—oil produced no good stool. No epigastric soreness on pressure.	Gave 4 grs. opium, and 2 oz. brandy, and directed 2 grs. opium every hour.
" 27. Morning.	Patient no better. The brandy increased his distress during the early part of the night,—pulse slow and soft,—tongue white with red edges, and during the intervals of delirium, great prostration. Evidences of poisoning are again developed. Secretion of urine has not decreased in quantity.	Gave 3 grs. opium, and directed 10 grs. carbonate of ammonia every two hours.
" " Evening.	Has slept two or three hours during the day, and experienced considerable improvement in the disease. The symptoms of poisoning have again disappeared, and the urine has decreased about one fourth in quantity.	Gave 3 grs. opium, and directed 10 grs. carbonate of ammonia every two hours.
" 28. Morning.	Greatly improved,—has had some sleep.	Continue the opium and ammonia as above.

<i>Dates.</i>	<i>General Symptoms.</i>	<i>Treatment.</i>
May 28. Evening.	Continues to improve.	Directed 10 grs. carb. ammonis every two hours—opium omitted.
" 29. Morning.	Nat near so well,—delirium and tremors have increased,—has had but little sleep,—is rather costive.	Gave 1½ oz. Ol. ricini, and 3 grs. opium.
" " Evening.	Symptoms about the same,—oil has operated three times.	Gave 3 grs. opium, and directed 10 grs. carb. ammonia every two hours.
" 30. Morning.	Symptoms of disease improved,—slept tolerably well during the night, but is very weak,—no appetite,—tongue clean,—a little delirious yet, but nerves more steady. Urine decreased about one half.	Gave 3 grs. opium, and directed 4 grs. quinine in two doses, at intervals of two hours.
" " Evening.	All the symptoms greatly aggravated,—ungovernable delirium,—pervigilium gest,—excessive fear and pulse quick. The cause of this unfortunate change is attributed to the influence of quinine.	Gave 4 grs. opium, and directed 2 grs. every hour.
" 31. Morning.	The patient is no better,—has had a bad night,—no sleep,—pulse full and strang,—trunk and superior extremities hot and dry,—inferior extremities cold and moist, and bowels costive.	Administered 7½ grs. opium,—10 grs. carb. ammonia, shortly followed by 1 oz. Ol. ricini, and ordered the ammonia to be given every hour. Also directed the trunk and arms to have one cold sponging.
" " Evening.	Much better in every respect. After taking the third dose of ammonia he fell asleep, and continued in it profoundly for two hours. There were no symptoms of poisoning, and the oil operated three times.	Gave 2 grs. opium, and 10 grs. carb. ammonia.
June 1. Morning.	Continues to improve,—slept all night,—a little delirious yet,—appetite improved.	Directed 10 grs. carb. ammonia every two hours, and good soup for food.
" " Evening.	Continues to improve.	No medicine.
" 2. Morning.	Continues to improve.	Directed his usual food.
" 3. Morning.	Discharged cured.	

The preceding case of *delirium tremens*, associated as it was with a venereal affection, and the mode in which it has been treated, will upon examination present some features worthy of attention. And although it may shed no more light upon the pathology of this disease than is already possessed, it may add something toward rendering more valuable our remedial agents, by presenting a combination of them, that will strengthen their therapeutic power, and in this way serve to increase their usefulness.

Opium, "the sheet-anchor of our hopes" in this disease, is the great agent upon which in the vast majority of cases we are to rely for success: but it must be apparent, that in an uncombined state, possessed as it is of various properties, the system can bear only a certain relative quantity, and that in many instances, this quantity will not be sufficient to arrest the disease in its fatal tendency.

In recapitulating this case for the purpose of presenting more fully the advantages of medicinal combination, we shall begin with the effects of

opium unassisted by other substances, and then proceed to show the beneficial influence of carbonate of ammonia upon its operation.

It will be perceived from the commencement of treatment, that the quantity of opium was rapidly increased during each period of twenty-four hours, up to the evening of the 23d, as follows: 2 grs.; 15 grs.; 39 grs.; 48 grs.; and during the night of the 23d, 28 grs. more were taken, making in the aggregate, 132 grains of good Turkey opium, administered in four and one half days, without accomplishing the desired result. Under its therapeutic influence the affection nearly gave way; but the poisonous property of the drug was so strongly developed, that the further exhibition of it in such quantity, would have been attended in all probability with fatal consequences. Could the patient have withstood this poisonous influence, another day's continuance of its use would undoubtedly have subdued the disease. During the succeeding twenty-four hours, the quantity was reduced to twenty-four grains, divided in hourly doses; but this amount was inadequate to control the affection, and consequently on the evening of that day, the symptoms of poisoning were replaced by those of the malady greatly aggravated.

On the 25th the quantity was again augmented to forty-eight grains, and through the night of the 26th it was continued in hourly two-grain doses, which with what had been administered the preceding day, made seventy-two grains, when the poisonous influence again made its appearance. During the 27th there were six grains administered in two doses at intervals of twelve hours, in connection with two drachms of carbonate of ammonia, at intervals of two hours, in ten-grain doses. Under the influence of this change, the poisonous effects again subsided, and with a manifest improvement in the symptoms of the disease.

Through the night of the 30th twenty-eight grains of opium were administered without ammonia, and morning found the patient with a strong, full pulse—irregular temperature, and partial sweats, with costive bowels, and without sleep during the time. To these twenty-eight grains were added seven and a half more in one dose, in connection with ten grains of carbonate of ammonia. The ammonia to be repeated in ten-grain doses every hour, until sleep should prevent its further administration. After taking the third portion, the patient fell into a profound sleep, which continued two hours, when he awoke, much refreshed both in body and mind. The disease had evidently relaxed its hold upon the system, and the opium had left no deleterious influence in its stead.

The ammonia, I apprehend, had a two-fold operation. It exerted a therapeutic power upon the nervous system of organic life, by sustaining its functional action, and bore the patient above the prostrating influence of the disease, without further stimulating an already over-excited brain. A lesion of innervation is ultimately to be looked for in this affection, and any article

that will assist in obviating such a condition, must be an important agent in treating the disease under consideration.

But valuable as I conceive this preparation of ammonia to be in sustaining the system against the prostrating character of delirium tremens, its modifying influence upon the action of the only substance on which we can safely rely for success in treating it, is of far greater moment. Opium presents us with a curative principle, which, if possessed separate from the deleterious property with which it is combined, would be a specific for at least one affliction of the unfortunate inebriate. What this principle is, or whether it is a result of chemical changes effected in the drug by the ammonia when introduced into the system, I am unprepared to say: but that a power to control the poisonous influence of opium to a certain extent, and to render it more potent, is to be found in the ammonia, the case before us, to my mind, clearly demonstrates. The obvious effect was, to render the drug more powerful in its influence upon the disease, and at the same time to withhold its poisonous property, while the sanative quality upon which its value depends, was left untouched.

On the morning of the 27th, this being the thirteenth day of the disease and the ninth of treatment, all the symptoms of a severe case were present—a slow soft pulse, white tongue with red edges, large secretion of urine, and during the intervals of delirium, great prostration and general tremor of the muscles of animal life, and superadded was the poisonous effect of opium. Under these circumstances the use of ammonia was commenced. The opium, it is true, had been much reduced in quantity, but the ammonia so modified that which the system already contained, as well as what was administered in addition, that the curative power of the combined agents was soon evinced in the induction of sleep—the reduction of urine—the counteraction of poison, and a manifest improvement in all the symptoms.

The powerful influence of ammonia in permitting the curative principle of opium to exhibit its action, was more fully developed on the evening of the 31st. During the night of the 30th, twenty-eight grains of opium had been administered, and on the morning of the 31st, seven and one-half grains, in one dose were added, making thirty-five and one-half grains of the drug taken. Within three hours, at stated intervals, forty grains of carbonate of ammonia were administered, after which the specific influence of the opium almost entirely subdued the disease, and relieved the patient from his perilous situation, without having experienced any injurious effects from the large quantity of opium.

The curative power brought to bear upon the disease, did not reside in the ammonia; for, on the evening of the 28th, when the patient was rapidly improving under their combined agency, the opium was omitted, and he immediately relapsed. Neither can the recovery be attributed to a spontaneous termination; for when the poisonous effects of the opium subsided on

the evening of the 24th, from a reduction of quantity, the disease increased in severity: and the favourable change that occurred on the 27th was not in consequence of such cause; because it will be observed, on tracing the case to the evening of the 30th, that so far from the disease having run its course, it was greatly aggravated by the use of quinine.

Opium possesses the power of reducing the secretion of the kidneys when in an over-excited state, by removing the cause of excitement; but it exercised no influence upon their function in the early part of this case. Increased secretion of urine is a symptom of delirium tremens; and so long as the opium did not remove the cause, the renal secretion was unabated. One property of ammonia is, to augment in some degree the functional action of these organs, so that their change to a reduced action can only be attributed to the opium in subduing the morbid condition of the system. But without the assistance of ammonia in this instance, the opium could not have been administered in sufficient quantity, to have brought about this change, and by its modifying influence, the reduction of urine was effected.

The influence of opium upon the mucous membrane of the urethra when narcotism is induced, is clearly illustrated in the present instance. During the first four days of treatment the patient was fully under the operation of this drug, and without any other means, the gonorrhœal discharge was arrested, and a perfect cure was the result.

In the progress of treatment, castor oil was employed to relieve the bowels, which were torpid throughout the whole course, and with entire satisfaction. It was administered three times, when the system was under the influence of large doses of opium, and its operation was quite as prompt as under ordinary circumstances. I am inclined to believe that opium has but little power over the cathartic property of this drug.

ART. X.—*Fungus Hæmatodes of the Bladder*. By EMERY BISSELL,
M. D., of Norwalk, Ct.

I was summoned on the night of the 7th of June, 1842, to visit D. S. B. of this borough, in consultation with his family physician, on account of a sudden and profuse discharge of blood from the bladder, attended with most excruciating pain, evinced by his piercing cries and groans. He had already evacuated a pint or more of blood, and was still voiding it in considerable quantities, both in a fluid and coagulated state, at intervals of only a few minutes. In the course of the night he voided not less than three pints. He stated that the first indications of the disease, which he had ever felt or no-